

## PATENT ABSTRACTS OF JAPAN

(11) Publication number : 09-262583  
(43) Date of publication of application : 07.10.1997

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(51) Int. Cl.

C02F 1/46

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(21) Application number : 08-097596

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(22) Date of filing : 27.03.1996

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(54) PREPARATION OF ACIDIC WATER AND ALKALINE WATER

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a water electrolyzing method capable of simultaneously producing strong acidic water usable in sterilization, disinfection and washing and alkaline water suitable for drinking in low power consumption.

SOLUTION: In a water electrolytic cell demarcated into an anode chamber and a cathode chamber by a cation exchange membrane, electrolysis is performed while a weak acidic saline solution is supplied into the anode chamber. When a neutral electrolyte is used, acidity and alkalinity are well-balanced and a combination of strong acidic water-weak alkaline water is not obtained in both electrode chambers but, since weak acidic anode supply solution is used, strong acidic water can be formed in the anode chamber and weak alkaline water can be formed in the cathode chamber. Further, since the pH of the anode solution is sufficiently lowered by the pH of an acid present from the beginning, electrolysis may be performed only for a time necessary for obtaining sufficiently high ORP differently from a conventional electrolytic method and the same acidic water is obtained in power consumption about 1/10 conventional one.

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LEGAL STATUS

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[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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